UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

MONSANTO COMPANY,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 4:00CV01915 ERW
	)	
BAYER BIOSCIENCE N.V.,	)	
	)	
Defendant.	)	

MEMORANDUM AND ORDER

This matter comes before the Court upon Defendant's Motion for Summary Judgment [doc. #495]. On December 4, 2000, Monsanto Company [Monsanto] filed suit against Bayer Bioscience N.V. [Bayer] seeking a declaratory judgment that Monsanto's MON810 product, also known as YieldGuard, does not infringe on certain patents owned by Bayer. Monsanto also seeks a declaratory judgment that Bayer's patent claims are invalid and unenforceable. In a separate ruling entered on this date on Defendant's Motion for Summary Judgment [doc. # 490], the Court declared Claims 1, 7 and 12 invalid, so that the only patent claims that remain in issue are Claims 2, 5, and 8 of Bayer's United States Patent 5,545,565 [the '565 patent].[1] The '565 patent claims specify an invention of a "chimeric gene[2]. . . encoding Bt2 toxin. . ., wherein said Bt2 toxin

[1]The claims still in issue are 2, 5, and 8. The claims are as follows:
2. The chimeric gene as defined in claim 1, wherein said Bt2 toxin comprises the amino acid sequence of SEQ ID No. 1 from amino acid position 1 to an amino acid position between amino acid position 607 and amino acid position 725.
5. The chimeric gene as defined in claim 1, wherein said Bt2 toxin comprises the amino acid sequence of SEQ ID No. 1 from amino acid position 1 to amino acid position 725.
8. The chimeric gene as defined in any of claims 2 to 6, wherein said DNA fragment is artificially made.

[2]A "chimeric gene" is comprised of parts that do not occur in nature together. The insecticidal Bt2 protein does not naturally occur in a plant's DNA.

comprises the amino acid sequence of SEQ ID No. 1[.]" The '565 patent application was filed on January 22, 1986. Defendant seeks partial summary judgment indicating that Monsanto's defense based on (1) anticipation by Dr. Barnes' research in the area of Bt genes and (2) obviousness of the claims of the '565 patent must fail as a matter of law. For the reasons below, the motion is granted in part.

I. BACKGROUND

Dr. Wayne Barnes is an Associate Professor of Biochemistry and Molecular Biophysics at the Washington University School of Medicine. He was working with genes, prior to the January 22, 1986 date of Bayer's patent application, in order to develop a gene that expressed insecticidal toxins. Dr. Barnes began working on his plans to develop insect-resistant plants using truncated Bt genes in 1983. He disclosed his ideas to genetically engineer plants to express Bt genes and proposed attempting to identify the active toxic fragment of a Bt gene in a grant application submitted to the Department of Energy [DOE] in June 1983. It appears that the 1983 guidelines of the DOE indicate that the Government had the right to disclose any information in an application unless the applicant specifically designated the information to be kept confidential. No such designation appears in Dr. Barnes' application.

Over the next year, Dr. Barnes made at least two different Bt fusion genes, a Bt Berliner 1715/kanamycin fusion and an HD73 Bt/kanamycin fusion gene, with which he attempted to transform plants. The amino acid sequence disclosed in the '565 patent has been classified as "Cry1Ab" in the art, while the HD73 gene Dr. Barnes worked with is considered a "Cry1Ac" gene. Dr. Barnes has also worked with the Bt kurstaki clone of Lee Bulla in E. coli.

Starting in 1984, Dr. Barnes contacted fourteen companies and universities for the purpose of securing funding for his research. He disclosed to them his ideas for using truncated Bt gene fusions to develop insect resistant plants. Dr. Eric Ward, Dr. Barnes' research assistant, testified in a prior trial that Dr. Barnes told multiple companies "what he was planning to do" and

"would essentially tell everybody that came through the lab" about his work with Bt genes.[3] However, Dr. Ward has never indicated that any particular documents were accessible to the public. On the other hand, Dr. Barnes indicated that he "extracted a declaration of confidentiality from everyone that [he] talked to, and in writing, as far as [he] [could] recall[.]"[4]

Dr. Barnes gave a presentation around October 31, 1985, at the First International Congress of Plant Molecular Biology Conference in Savannah regarding truncated Bt gene constructs.[5] His presentation was titled, "A Bifunctional Gene for Insecticide and Kanamycin Resistance," and an abstract of that presentation was published in a collection of abstracts for the First International Congress of Plant Molecular Biology which was handed out to the participants.[6] Dr. Barnes spoke on the topic of his abstract, but did not limit his discussion to its

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[3]Bayer claims that Dr. Ward is an interested party. At the time of Plant Genetic Systems, N.V. v. Novartis Seeds, Inc., Dr. Ward was Vice President of Research for Novartis Crop Protection. Novartis was also attempting to assert that the Barnes' work invalidated Bayer's truncated Bt patents.

[4]Monsanto submits that there are only two confidentiality agreements in Dr. Barnes' files. The is an agreement between Dr. Barnes and Syntro Corporation and a request by Dr. Barnes to Dr. Aronson of Purdue University that Dr. Aronson keep the enclosed information a proprietary secret. Bayer claims that a number of pieces of correspondence expressly indicate the secret and proprietary nature of the genes discussed therein. Also, some of the documentation and letters in Dr. Barnes' files refer to confidentiality agreements missing from the files.

[5]Specifically, Dr. Ward remembers Dr. Barnes speaking about a truncated Bt kana-fusion gene and the idea of using high levels of kanamycin in the fusion gene in order to select for high levels of expression. Dr. Barnes also alluded to the PEW37 construct Dr. Ward had made.

[6] The abstract states in full:

> We have found that the second half of the Bacillus thuringiensis toxin gene is dispensable for the expression of an active insecticide. Not only may it be deleted, the second half of the gene may be replaced by the codons of NPII kanamycin resistance from Tn5, and both activities are expressed. When this gene fusion is made in the wrong reading frame, the kanamycin resistance is not expressed, indicating that read-through from the Bt toxin gene is responsible for expression in the in-frame fusion.
>
> We have tailored transcriptional control signals from the T-DNA of pTiT37 so that

literal words. He told the audience that he had actually produced transgenic tobacco plants using a fusion gene comprised of truncated HD73 strain Bt and kanamycin. He disclosed the structure of his fusion gene and how he made it, the type and approximate size of the Bt gene he used, the restriction sites he used, the kanamycin resistance gene he fused to the Bt gene. He said that he used the Agrobacterium method of plant transformation. The genes disclosed during the presentation encode a Cry1ac protein, not a Cry1ab protein. Dr. Barnes informed the audience that although his plants expressed kanamycin resistance, they did not, as of that date, express detectable amounts of the Bt toxin gene. He stated, however, that he expected his plants would express Bt because they expressed kanamycin.[7] A scientist of Bayer's predecessor, PGS, was present and took notes during Dr. Barnes' presentation.

Dr. Barnes started having success with his work, and in June 1986, he submitted a written report to BioTechnica International, one of his financial sponsors, indicating that he had successfully obtained transgenic plants with detectable amounts of Bt protein. However, Dr. Barnes has never commercialized any product or filed a patent application embodying the work he has done over the years with Bt genes and toxins.

II. SUMMARY JUDGMENT STANDARD

Pursuant to Federal Rule of Civil Procedure 56(c), a court may grant a motion for summary judgment only if all of the information before the court shows "there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P.

> this fused gene may be inserted in place of the nopaline synthase codons adjacent to the right border signal from T-DNA. This plant gene should express the insecticide and kanamycin resistance from the same promoter. Whether or not the two halves of the fused gene remain together at the level of gene product, selection for kanamycin resistance should ensure the expression of the insecticide, and could also be used to screen or select for altered or higher levels of expression.

[7]Kanamycin is another protein that was in the plants being tested.

56(c); Crumley v. City of St. Paul, 324 F.3d 1003, 1006 (8th Cir. 2003). The United States Supreme Court has noted that "[s]ummary judgment procedure is properly regarded not as a disfavored procedural shortcut, but rather as an integral part of the federal rules as a whole, which are designed to 'secure the just, speedy and inexpensive determination of every action.'" Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986) (quoting Fed. R. Civ. P. 1).

"'By its terms, [Rule 56(c)(1)] provides that the mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for judgment; the requirement is that there be no *genuine* issue of *material* fact.'" Hufsmith v. Weaver, 817 F.2d 455, 460 n.7 (8th Cir. 1987) (quoting Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48 (1986) (emphasis added by Supreme Court)). Material facts are "those 'that might affect the outcome of the suit under governing law.'" Id. (quoting Anderson, 477 U.S. at 247-48). Summary judgment will be denied due to a material issue of genuine fact if "the evidence is sufficient to allow a reasonable jury to return a verdict for the non-moving party." Crumley, 324 F.3d at 1006. Further, if the non-moving party has failed to "make a showing sufficient to establish the existence of an element essential to that party's case, . . . there can be 'no genuine issue as to any material fact,' since a complete failure of proof concerning an essential element of the nonmoving party's case necessarily renders all other facts immaterial." Celotex, 477 U.S. at 322-23, quoted in St. Jude Med., Inc. v. Lifecare Intern., Inc., 250 F.3d 587, 595 (8th Cir. 2001).

The initial burden of proof in a motion for summary judgment is placed on the moving party to establish the non-existence of any genuine issue of fact that is material to a judgment in its favor. Crumley, 324 F.3d at 1006 (citing Lynn v. Deaconess Med. Ctr.-W. Campus, 160 F.3d 484, 487 (8th Cir. 1998)). The burden then shifts to the non-moving party who must set forth specific evidence showing that there is a genuine dispute as to material issues. Anderson, 477 U.S. at 249. To meet its burden, the non-moving party may not rest on the pleadings alone and must "do more than simply show there is some metaphysical doubt as to the material facts."

Matsushita, 475 U.S. at 586. "Rule 56 demands something more specific than the bald assertion of the general truth of a particular matter, rather it requires affidavits that cite specific concrete facts establishing the existence of the truth of the matter asserted." Hilgraeve, Inc. v. Symantec Corp., 271 F.Supp.2d 964, 974 (E.D. Mich. 2003).

In analyzing summary judgment motions, the court must view the evidence in the light most favorable to the non-moving party. Crumley, 324 F.3d at 1008. The non-moving party is given the benefit of any inferences that can logically be drawn from those facts. Matsushita, 475 U.S. at 586. The court may not "weigh the evidence in the summary judgment record, decide credibility questions, or determine the truth of any factual issue." Kampouris v. St. Louis Symphony Soc., 210 F.3d 845, 847 (8th Cir. 2000). The court instead "perform[s] only a gatekeeper function of determining whether there is evidence in the summary judgment record generating a genuine issue of material fact for trial on each essential element of a claim." Id.

III. DISCUSSION

Monsanto argues that the '565 patent is invalid because Dr. Barnes' research on genes anticipated Bayer's '565 patent pursuant to 35 U.S.C. § 102, or, at a minimum, Dr. Barnes' work made the chimeric gene disclosed in the '565 patent obvious pursuant to 35 U.S.C. § 103. Section 282 of the Patent Act indicates that patents are presumed to be valid. 35 U.S.C.A. § 282. "In order to overcome the presumption of validity, the party challenging a patent must prove facts supporting a determination of invalidity by clear and convincing evidence." Apotex USA, Inc. v. Merck & Co., Inc., 254 F.3d 1031, 1036 (Fed. Cir. 2001). "[U]ncorroborated oral testimony, particularly that of interested persons recalling long-past events, does not, of itself, provide the clear and convincing evidence required to invalidate a patent[.]" Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1369 (Fed. Cir. 1998). In determining whether oral testimony has been corroborated, the court considers factors such as

> (1) the relationship between the corroborating witness and the alleged prior user, (2) the time period between the event and trial, (3) the interest of the corroborating witness in the subject matter in suit, (4) contradiction or impeachment of the witness' testimony, (5) the extent and details of the corroborating testimony, (6) the witness' familiarity with the subject matter of the patented invention and the prior use, (7) probability that a prior use could occur considering the state of the art at the time, (8) impact of the invention on the industry, and the commercial value of its practice.

Woodland Trust, 148 F.3d at 1371.

A. Anticipation

35 U.S.C. Section 102 mandates that

> [a] person shall be entitled to a patent unless – (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or. . . (g). . . (2) before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

A party challenging a patent claiming that it was anticipated under the prior art categories of § 102 must provide clear and convincing evidence of "the presence in a single prior art disclosure of all elements of a claimed invention arranged as in that claim." Carella v. Starlight Archery and Pro Line Co., 804 F.2d 135, 138 (Fed. Cir. 1986). If the prior art reference contains all of the claim limitations, the patented invention is not novel and the claims have been anticipated.

It is clear that Dr. Barnes' work did not embody all of the elements of Bayer's invention.[8] Monsanto has presented no evidence that the amino acid sequence encoding the Bt

[8]Indeed, Monsanto did not even respond to Bayer's arguments relating to anticipation.

genes studied by Dr. Barnes is the same amino acid sequence as SEQ ID No. 1 identified in the '565 patent. In fact, the amino acid sequence disclosed in the '565 patent has been classified by those with skill in the art as "Cry1Ab" while the gene Dr. Barnes worked with was classified as "Cry1Ac." The Court holds that the claims of the '565 patent were not anticipated by the research of Dr. Barnes.

B. Obviousness

Monsanto argues that even if Dr. Barnes' work does not anticipate the '565 patent, the prior art reference does make the '565 patent obvious. 35 U.S.C. Section 103(a) mandates that

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

If the claims of an invention are not identical to the elements of a single prior art reference, the claims will not be considered anticipated. However, if the prior art reference would enable a person with ordinary skill in the art to make and use the claimed invention without undue experimentation, the invention is considered to be obvious. The party seeking to invalidate a patent based on obviousness must establish all the facts by clear and convincing evidence. Carella, 804 F.2d at 138.

In order to show that an invention was obvious based on prior art references, the Court must consider (1) "the scope and content of the prior art;" (2) "differences between the prior art and the claims at issue;" and (3) "the level of ordinary skill in the pertinent art." Id. at 139. Further, "secondary considerations as commercial success, long felt but unsolved need, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Id. The party seeking to invalidate the patent must also

show that the inventor had "a reasonable expectation of success" when he modified the prior art to create his invention. Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1354 (Fed. Cir. 2003). The first step is to determine whether Dr. Barnes' work is prior art under § 102. If the work is prior art, the Court must determine its scope and content.

1. Prior Art Under Sections 102(a) and 102(b)

An applicant is not entitled to a patent if "the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent." 35 U.S.C. § 102. Similarly, an applicant will not receive a patent if "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102.

Monsanto argues that Dr. Barnes' work with Bt genes was "known" and "published" prior to Bayer filing its '565 patent. In order to be "known," the invention must be "accessible to the public." Carella, 804 F.2d at 138; Application of Borst, 345 F.2d 851, 854 (Cust. & Pat.App. 1965). An invention may be considered as "known" or "used" only if it "has been completed by reduction to practice, actual or constructive, and is not satisfied by disclosure of a conception only." Application of Borst, 345 F.2d at 854. The underlying rationale for this statute is that once an invention is known and used by the public, it would be unfair to then take it away for the benefit of an individual. Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 1453-54 (Fed. Cir. 1984) ("Society, speaking through Congress and the courts, has said 'thou shalt not take it away.'").

"The statutory phrase 'printed publication' has been interpreted to mean that before the critical date,[9] the reference must have been sufficiently accessible to the public interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was 'published.'" In re Klopfenstein, 380 F.3d 1345, 1348 (Fed. Cir. 2004) ("a presentation that includes a transient display of slides is likewise not necessarily a 'printed publication.'"); Norian Corp. v. Stryker Corp., 363 F.3d 1321, 1330 (Fed. Cir. 2004) (abstract of invention at conference not "published" because it was only available on individual request and it was not shown that there was a request by any attendees of the conference); In re Cronyn, 890 F.2d 1158, 1159 (Fed. Cir. 1989) (theses not "published" even though available for public examination because library cards were not indexed or catalogued). "Accessibility goes to the issue of whether interested members of the relevant public could obtain the information if they wanted to. If accessibility is proved, there is no requirement to show that particular members of the public actually received the information." Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1569 (Fed. Cir. 1988). "Whether a document is a prior publication is a question of law." Norian, 363 F.3d at 1330.

In addition to being published, the printed publication prior art must contain an enabling description of the invention. See Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1354 (Fed. Cir. 2003) (was not prior art because study was a failure); Helefix Ltd. v. Blok-Lok, Ltd., 208 F.3d 1339, 1347 (Fed. Cir. 2000) ("[E]ven if the claimed invention is disclosed in a printed publication, that disclosure will not suffice as prior art if it was not enabling"); In re Epstein, 32 F.3d 1559, 1568 (Fed. Cir. 1994) (printed publications that are prior art references must be enabling to put the "disclosed matter in the possession of the public"); Constant, 848

[9]The "critical date" is the date one year prior to the date of when a patent application is filed. This date is considered critical because it triggers the statutory bars in § 102(b).

F.2d at 1569. The description must be such that it would enable a person with ordinary skill in the art to make and use the invention without undue experimentation. Helefix, 208 F.3d at 1347.

DOE Funding Application

In this case, Dr. Barnes disclosed his work in an application to the Department of Energy in 1983. Monsanto refers the Court to the DOE Guidelines in place during that year indicating that the Government had the right disclose any information in the request if it chose to do so. However, the Court finds that questions still remain regarding whether the information would have been accessible to the public. Although Monsanto has suggested that the information contained in the application would indeed be subject to a freedom of information request, Monsanto has provided no information to the Court regarding how someone would come to know the Government had the information, how a person would ask for the information, and finally, whether the funding applications were indexed in such a way that the public would be able to find the application. The Court notes that so long as the information is accessible, it is not necessary that Monsanto "show that particular members of the public actually received the information." Constant, 848 F.2d at 1569. These remaining questions of fact make summary judgment inappropriate on the issue of whether the DOE funding application was indeed published under 35 U.S.C. § 102(b).

Laboratory Notebooks and Correspondence with Companies, Universities and Other Scientists

Monsanto argues that Dr. Barnes' laboratory notebooks and correspondence with at least 14 companies and universities should constitute prior work. Monsanto argues that Dr. Ward's testimony establishes that based on Dr. Barnes' propensity to share the results of his work with outside researchers, it is likely that his work was publicly disclosed. The Court finds, even after viewing all the facts in a light favorable to Monsanto, that Monsanto has not presented clear

and convincing evidence that members of the public would have been able to access his research if they wanted to do so. Dr. Barnes insists that he required a confidentiality agreement before disclosing his research. Although Dr. Barnes only has two of these agreements in his files, other correspondence makes reference to other confidentiality agreements missing from his files, each letter written by Dr. Barnes was to a specific individual, and Bayer provides numerous examples sprinkled throughout the correspondence demonstrating that Dr. Barnes repeatedly referred to his research as secret or proprietary in nature. The Biotechnica report, in particular, was clearly not publicly accessible before Bayer filed its patent application on January 22, 1986, because the report was not even sent until June 1986. Monsanto has not shown that any of Dr. Barnes' laboratory notebooks and correspondence with the companies or universities was publicly accessible.

Furthermore, Dr. Ward's testimony is insufficient to show that Dr. Barnes' research was publicly available. Dr. Ward is an uncorroborated witness that has an interest in the Court declaring Bayer's patent invalid. Certainly, these events took place many years ago, and Dr. Ward has not provided any specific examples of documents that Dr. Barnes made accessible to the public. He has provided only generalized statements which are insufficient to meet Monsanto's burden of proving the existence of prior art with clear and convincing evidence. The Court holds that the Dr. Barnes' laboratory notebooks and correspondence with the companies, universities and other scientists cannot be used to prove Dr. Barnes' work with the Bt genes was prior art under 35 U.S.C. § 102(a) or § 102(b) for purposes of proving invalidity based on obviousness.

Conference in Savannah

Monsanto argues that Dr. Barnes' research is prior art under § 102(a) because the research was described in a written abstract and an oral presentation around October 31, 1985, at the First International Congress of Plant Molecular Biology Conference in Savannah, Georgia.

The Court finds that Dr. Barnes' research was not "known or used by others in this country" but was "described in a printed publication." An abstract of his work was photocopied and distributed to the conference participants. He presented his research findings to 200 scientists at the conference and placed no limitation on note-taking. Indeed, a scientist working for Bayer's predecessor attended the presentation and took detailed notes. However, at the time of the conference, Dr. Barnes represented that his plants had not expressed detectable amounts of the Bt toxin gene. Because Dr. Barnes had not yet reduced his invention to practice, the research underlying the abstract and presentation at the conference cannot be said to have been prior art that was "known or used by others." Although Dr. Barnes' research was disseminated and accessible to the public during this conference, the facts are unclear as to whether the abstract was enabling. A question of fact remains as to whether a person with ordinary skill in the art, relying on the information disclosed in the abstract and presentation of Dr. Barnes, would have been able to successfully transform plants so that they would express the Bt toxin.

3. Prior Art Under Section 102(g)

Monsanto claims that Dr. Barnes' prior art under § 102(g) made Bayer's later '565 patent claims obvious. An applicant is not entitled to a patent if

> before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

35 U.S.C. § 102(g)(2). If a prior inventor's work makes later inventor's invention obvious, the invention will be invalid. Under the statute, an inventor can demonstrate that he was the first to invent by showing either that (1) he reduced the invention to practice first or (2) he was the first to have conception of the invention and then exercised reasonable diligence in reducing the

invention to practice. 35 U.S.C. § 102(g)(2). "Section 102(g) operates to ensure that a patent is awarded only to the 'first' inventor in law." Apotex USA, 254 F.3d at 1035.

Bayer does not argue that Monsanto should be prohibited from using any particular documents to support Dr. Barnes' alleged date of conception or reduction to practice. Instead, Bayer claims that Dr. Barnes has "abandoned, suppressed or concealed" his work. Even if a person is a prior inventor, his invention will not be considered to be prior art if he "abandoned, suppressed, or concealed" his invention. See 35 U.S.C. § 102(g)(2). "The courts have consistently held that an invention, though completed, is deemed abandoned, suppressed, or concealed if, within a reasonable time after completion, no steps are taken to make the invention publicly known." Int'l Glass Co. v. U. S., 408 F.2d 395, 403 (Ct. Cl. 1969).

> [T]he challenger of the validity of a patent must establish prior invention by clear and convincing evidence. If the challenger does so, the burden of production shifts to the patentee to produce evidence sufficient to create a genuine issue of material fact as to whether the prior inventor abandoned, suppressed, or concealed the invention. If the patentee carries this burden of production, the challenger may rebut the evidence of abandonment, suppression, or concealment, with clear and convincing evidence to the contrary.

Dow Chemical Co. v. Astro-Valcour, Inc., 267 F.3d 1334, 1339 (Fed. Cir. 2001). There are two ways that an inventor can abandon, suppress or conceal an invention. First, the inventor can actively take measures to restrict public accessibility. Id. Second, it will be inferred that the inventor has abandoned, suppressed, or concealed her invention if she unreasonably delays making the invention publicly known. Id. (failure to file a patent application, embody the invention in a product for sale, describe the invention in any published documents, or use the invention publicly within a reasonable time may constitute abandonment, suppression, or concealment).

Section 102(g) does not "contain a known to the art requirement apart from the requirement of no abandonment, suppression or concealment." E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1437 (Fed. Cir. 1988) (internal citations omitted).

Although there is no requirement in § 102(g) that requires an inventor to publicly disclose his invention, "the spirit and policy of the patent laws encourage an inventor to take steps to ensure that the public has gained knowledge of the invention which will insure its preservation in the public domain or else run the risk of being dominated by the patent of another." Apotex USA, 254 F.3d at 1038-39 (internal citations omitted). "Thus, prior, but non-public, inventors yield to later inventors who utilize the patent system." OddzOn Products, Inc. v. Just Toys, Inc., 122 F.3d 1396, 1402 (Fed. Cir. 1997). However, just "[b]ecause work is 'secret' does not necessarily mean that it has been 'abandoned, suppressed or concealed.'" E.I. du Pont de Nemours, 849 F.2d at 1437 n.5. "[E]ach case involving the issue of suppression or concealment must be considered on its own particular set of facts." Dow, 267 F.3d at 1342.

It does not appear that, for purposes of this motion, Bayer disputes that Dr. Barnes' work constituted a prior invention. However, Bayer has presented evidence that Dr. Barnes' abandoned, suppressed or concealed his invention. Specifically, Bayer points out the fact that Dr. Barnes' work remains under this Court's confidentiality order demonstrates the he has "actively take[n] measures to restrict public accessibility" to his research. See Id. at 1339. Furthermore, the Court notes Dr. Barnes' insistence for confidentiality agreements and the fact that he never commercialized or attempted to patent his work. However, Monsanto has presented sufficient evidence that Dr. Barnes' published work at the Savannah Conference shows that he did not abandon, suppress or conceal his work.[10] Because Monsanto has presented evidence rebutting Bayer's arguments, Bayer's motion for summary judgment is denied. Monsanto shall be able to present any admissible, relevant evidence relating to Dr. Barnes work disclosed in his abstract and presentation that support a claim of obviousness under 35 U.S.C. § 103.

[10]Bayer does not satisfactorily explain why the abstract and presentation at the conference were not an attempt by Dr. Barnes to make his invention publicly known. Instead, Bayer argues that it is unfair to allow the jury to see all of Dr. Barnes' work when he disclosed only this one piece of research relating to the HD73 Cry1Ac Bt gene at the conference.

Accordingly,

IT IS HEREBY ORDERED that Defendant's Motion for Partial Summary Judgment Dismissing Monsanto's Defenses Related to Dr. Barnes [doc. # 495] is **GRANTED in part and DENIED in part**. Summary Judgment is granted in favor of Bayer relating to Monsanto's defense that Dr. Barnes' research anticipated Bayer's patent claims. Summary Judgment is granted in favor of Bayer relating to Monsanto's defense that Dr. Barnes laboratory notebooks, correspondence, and Biotechnica report constitute published work in supporting obviousness. Questions of material fact relating to whether the DOE application was published include: how someone would come to know the Government had the DOE application, how a person would ask for the information, and whether the funding applications were indexed in 1983, in such a way that the public would be able to find the application. Questions of fact relating to whether a person with ordinary skill in the art, relying on the information disclosed in the abstract and presentation of Dr. Barnes, would have been able to successfully transform plants so that they would express the Bt toxin. Finally, a question of fact remains as to whether Dr. Barnes' research was abandoned, suppressed or concealed.

Dated this 10th day of May, 2005.

E. RICHARD WEBBER
UNITED STATES DISTRICT JUDGE